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1 RECORD OF ORAL HEARING
2 UNITED STATES PATENT AND TRADEMARK OFFICE

3 _____
4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES

6 _____
7 *Ex Parte* ANTOON JOHANNES Van ROSSUM and
8 ANTONIUS FRANCISCUS BERTELS

9 _____
10 Appeal 2009-009810
11 Application 10/815,942
12 Technology Center 1700

13 _____
14 Oral Hearing Held: January 12, 2010

15 _____
16 Before CATHERINE Q. TIMM, MICHAEL P. COLAIANNI, and
17 JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

18 APPEARANCES:

19 ON BEHALF OF THE APPELLANT:

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26

1 The above-entitled matter came on for hearing Tuesday, January 12, 2010,
2 commencing at 9:17 a.m., at the U.S. Patent and Trademark Office, 600
3 Dulany Street, Alexandria, Virginia, before Ronaldo Otero, a Notary Public.

4 THE USHER: Calendar No. 13, Appeal No. 2009-9810,
5 Mr. Iwanicki.

6 JUDGE TIMM: Good morning, Mr. Iwanicki.

7 MR. IWANICKI: Good morning.

8 JUDGE TIMM: You're before Michael Colaianne; myself, Catherine
9 Timm; and Jeffrey Robinson [sic] today.

10 MR. IWANICKI: Yes.

11 JUDGE TIMM: Robertson. Sorry. And if you could, spell your last
12 name for the court reporter, or if you have a business card you can hand him,
13 that'd be great.

14 MR. IWANICKI: I-w-a-n-i-c-k-i.

15 JUDGE TIMM: And as you know, you have 20 minutes.

16 MR. IWANICKI: Yes.

17 JUDGE TIMM: And you may begin when you are ready.

18 MR. IWANICKI: Okay. If it would please the Court, there is a
19 theme that I'd like you to keep in mind when considering this case, and the
20 theme is optimization without evidence of predictability is invention. And I
21 think that's what we have here in this case, because the invention is a
22 protective coating on a greenhouse. And the protective coating includes a
23 pigment and a binder, and the term binder in and of itself has meaning. A
24 binder in this art means that it has to have cohesive forces to apply to the
25 pigment particles, but it also has to be able to adhere to the panes of the
26 greenhouse.

Now, this binder is also called out as being a polymer and a polymer having four different characteristics, and the four characteristics are the weight average molecular weight, the acid value, the polydispersity, and the glass transition temperature.

Now, the obviousness rejection in this case, the articulated reasoning, if you will, under KSR, is based on the rationale of *In re Aller*. And I'm sure you're familiar with the *In re Aller* case. But that *In re Aller* case, the rationale of *In re Aller* cannot be applied to the facts of this case. Now, in *In re Aller*, you had a chemical reaction in the prior art. And then you had the claimed chemical reaction, the very same chemical reaction. But what was changed in the claim was the temperature at which the reaction was run and the percent of acid for one of the reagents.

Now, in that particular case, the court held that simply altering those two particular values was mere optimization, and in this particular instance - and it was mere optimization because you had the same reactants, the same products, and all you did is you produced more of the same products. And so what you did is you optimized the yield of a known reaction.

Now, in the present case, we've got two pieces of prior art in the first rejection. It's *van Rossum* and *Yoshida*, okay? And now, *van Rossum* discloses a binder that is a different chemical entity from the claimed binder. It is different in kind. It is not different in degree. And we know it's different in kind because of the evidence presented through the declaration of *Antonius Bertels*. That declaration, essentially, set forth that *van Rossum*, which taught a binder, had particular values for the molecular weight, the acid value, the polydispersity, and the glass transition temperature. And those were different -- and those are different from -- at least two are

1 different from the ranges in the claim. And those values, those
2 characteristics, are derived from the chemical structure of the polymer itself.
3 And when you alter those characteristics, what you essentially do is you
4 create a different chemical entity. It's different in kind. It has a different
5 structure based upon those four different values.

6 And now, van Rossum needs to be changed. Even the Examiner
7 understands that because of the obviousness rejection and the optimization.
8 So it needs to be changed. So what one of ordinary skill in the art needs to
9 do is look at van Rossum. They need to create a different molecule. And
10 then they need to go ahead and see whether that molecule has the claimed
11 characteristics, but also acts as a binder. And that's really very important
12 because it relates to the combination of Yoshida.

13 What the position is here is that the evidence of unpredictability, if
14 you will, is found in Yoshida. Now, there needs to be some level of
15 predictability. I'm sure you're aware of the In re Antonie case as well, which
16 was decided by the CCPA at the same time as -- or the same year, anyways,
17 as In re Aller. And that case said an exception to In re Aller is where the
18 characteristics being changed are not result effective variables. And what
19 that means is that In re Antonie means that the effect of changing the
20 characteristic has to be a predictable result. And there must be some
21 evidence of that.

22 And that was the case in In re Aller. The court decided there that
23 changing the temperature and the percentage of that acid, those were result-
24 effective variables. And in this present case, there is absolutely no evidence
25 that any of these four characteristics or the properties of the claim binder
26 itself, when you alter those, those are result-effective variables. And the

1 Examiner needs to have that, needs to have that from the teachings itself,
2 because, as we said, you have to be able to go from van Rossum's chemical
3 entity to the claimed chemical entity.

4 And Yoshida, the evidence at Pages 9 and 10 of our Appeal Brief
5 clearly demonstrates that the mere recitation of the ranges alone is not
6 enough to predict the properties of the material that's created or that has
7 those characteristics. And that's true because when you take a look at the
8 evidence in the Brief, each one of those materials has different properties
9 that could be mutually exclusive.

10 And Yoshida takes great pains when they describe -- I believe it's at
11 Columns 3 through 12 -- when they describe each one of these ranges, they
12 always end up the paragraph with a description of what the property is or
13 what the material is: It's an alkali soluble adhesive. It's an alkali soluble
14 film. It's a pressure-sensitive adhesive or an acrylic rubber or an injection
15 molding or water ink. And each one of those different materials has ranges,
16 or has variables, for those four characteristics that can overlap and, in fact,
17 that can be identical.

18 And so one of ordinary skill in the art, taking a look at Yoshida,
19 they're going to say well, I got to make something here from van Rossum.
20 Van Rossum doesn't tell me anything about any of these four characteristics.
21 There is nothing in there that gives any guidance or direction to change the
22 chemical entity of van Rossum into something different. What the Examiner
23 says is yeah, but Yoshida provides the ranges, and then concludes In re
24 Aller, optimization of ranges. But the Examiner is missing the very
25 important fact of the evidence that each one of these things is a result-

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1 effective variable, meaning keep three constant, change one. What are you
2 going to get? Is it predictable? There is no evidence of that.

3 But you've got four here, four that need to interact together to produce
4 the claim binder. And that claim binder, that term itself, has meaning. It's
5 not just a polymer. It's a polymer that can cohere to the pigment particles
6 and also adhere to the glass. If you read through the specification, the
7 invention is a little bit like the three bears with respect to adhesive strength:
8 Not too weak, not too strong, but just right. And the position is that the
9 Examiner has not set forth facts sufficient to invoke the rationale of In re
10 Aller simply because there is no evidence that any of these ranges are result-
11 effective variables. And without that, the Examiner does not have the
12 articulated reasoning supported by rational underpinnings that's dictated by
13 KSR.

14 JUDGE TIMM: The Examiner relies on Column 8 of the Yoshida
15 reference at Line 18. In that paragraph, it talks about creating a film for
16 agricultural use or a temporary protecting film. It appears, although it's not
17 clear from the rejection, that the Examiner is trying to say that you would
18 use the Yoshida acrylic acid polymer for the coating, based on the fact that
19 Yoshida discloses using this in the agricultural use or the temporary
20 protecting film. What's your position on that?

21 MR. IWANICKI: Well, Yoshida makes -- at least it makes clear to
22 me, anyways, that there is a difference between the term coating and film.
23 Yoshida uses both of those terms. It uses the term coating earlier on in the
24 specification. They don't use the term coating with respect to this particular
25 polymer, which is in the physical form of a film. That's the first thing. So a
26 film is not a coating.

1 The second thing is the identification of an agricultural use, I'm not
2 sure what that means. I don't know essentially what the specific meaning of
3 that is. It certainly doesn't say horticultural use, which would be the use of
4 something to help grow plants, which is what the effect of this invention is,
5 and agricultural use can be fertilizer, for instance. I mean, one of ordinary
6 skill in the art doesn't really understand what that means. At least I don't
7 understand what that means. I don't think that's enough of a teaching there
8 to bind the two together. But in this instance, there is no teaching in that
9 film that there is a pigment present, and that's an important part of this claim.
10 There's got to be a pigment and a binder to make the protective coating.
11 And there also has to be adherence. There's got to be adherence to the glass
12 because just like the three bears, it's not too weak, it's not too strong, it's just
13 right. It just sticks on there and lasts a season or two and then can be taken
14 off.

15 Now, the film is in the form of a film. It's processed according to a
16 hot melt technique. And so it's more akin to a plastic wrap. And what the
17 properties of that plastic wrap are I don't know. One of ordinary skill in the
18 art doesn't know. But what one of ordinary skill in the art knows is that the
19 unpredictability based on Yoshida says that you may be able to make
20 something and it may have values of those four characteristics, but you don't
21 know whether it's going to function as a binder in this instance because
22 Yoshida says you can choose the same values, and you can have water inks,
23 and you can have films, and you can have injection molding stuff, and you
24 can have pressure-sensitive adhesives, and you can have all these kinds of
25 things. And so what one of ordinary skill in the art is going to take away
26 from this is, "I don't know whether it's going to work or not. I really don't."

1 It's not even obvious to try. It is invitation to invent, but it is not obvious to
2 try. There is no result effective variable identified by Yoshida, no evidence
3 of that, and none can be gleaned because Yoshida is all over the place with
4 respect to all of these values that are overlapping in getting materials that are
5 very different in utility, function and characteristics.

6 JUDGE TIMM: Did you have any argument you wanted to make
7 with regard to the other rejection?

8 MR. IWANICKI: Yes. Sato, based on Yoshida. Sato was the
9 primary reference. Yoshida is the secondary reference which is supposed to
10 provide that the polymer, if you will -- I believe that with respect to both of
11 these rejections, the Examiner says the polymer is known. It's our position
12 that the polymer is not known. The polymer needs to be created. The
13 polymer at least in the context of the invention is this binder, and this binder
14 has certain properties, and it also has these four characteristics. And they all
15 have to come together. They all have to be in the prior art.

16 Now, with respect to Sato, I believe Sato is a film, and on top of that
17 film there's a metal oxide, and the metal oxide provides some kind of
18 protection, if you will. It only allows certain light through. And it does
19 provide that protection, but there is no evidence, number one, that the film in
20 Sato is performing as a binder. Why? Because it's sort of -- it's a bi-layer
21 structure, and it's not as if you have the protective coating where you've got
22 the binder and the pigment and if you read the specification, it's in the form
23 of a viscous liquid, and it can be applied by spraying or painting or brushing.

24 With respect to Sato, you've got a film and you've got this coating on
25 top of it, this metal oxide layer. There is no evidence that there is any
26 binding capability, if you will, in the context of the invention. And our

1 position is that the Examiner says it's easy to swap out the film of Yoshida
2 with that of Sato, but our position in our Brief is that you can't separate the
3 two. I mean, the film is actually what's forming that pane, if you will. And
4 if you remove it, you've got just that metal oxide coating, and it's almost like
5 saying, you know, let's remove the drywall and leave the paint on this wall.
6 You can't do it. The structure isn't going to be there. You're going to
7 destroy the structure.

8 Now, if you were going to go ahead and start from the beginning and
9 swap out the two; in other words, use that film of Yoshida and then put a
10 metal oxide on top of that, you still don't have any evidence of it being a
11 claimed binder. You don't know whether it's going to work for the same
12 reasons that we've expressed with respect to van Rossum and Yoshida.
13 There is no result effective variable, no evidence that any of these four
14 characteristics is a result effective variable on which one of ordinary skill in
15 the art would understand that if you alter one, you're going to get a
16 predictable result.

17 First of all, the two main pieces of evidence are the Declaration that's
18 been submitted that shows that, you know, you have different values.
19 You're going to get different properties. And Yoshida, which says that you
20 can have overlapping values for these characteristics, but there is no
21 evidence that how you alter one, how that's going to affect the property of
22 the material that you get because the properties are varied and Yoshida's
23 written description essentially says you can have these four ranges and it's a
24 water ink. You can have these four ranges and it's an injectable molding
25 product. You can have these four ranges, and you can have one of the other
26 products that's mentioned.

1 The written description itself provides the basis for one of ordinary
2 skill in the art to understand that you've got those four characteristics, but it's
3 also something else. It's a fifth characteristic. It's a property of the material.
4 And that's what provides the unpredictability in this art. Chemistry is an
5 unpredictable art. I know you may have often heard that term, but in this
6 case, I think it's particularly applicable to this situation.

7 JUDGE TIMM: Did you have any other questions?

8 JUDGE COLAIANNI: No questions.

9 MR. IWANICKI: Oh, may I just add one more, Your Honors, please,
10 if you'll indulge me? The Examiner also cites a case to In re Wertheim, and
11 that is the case that says where you have overlapping ranges there is a prima
12 facie case of obviousness. But I think in the context of In re Wertheim and
13 other cases, one of ordinary skill in the art needs to understand that
14 compounds within those overlapping ranges have to have predictable
15 properties or predictable results. I mean, that's really the key.

16 And the evidence before this body is that it's not predictable what
17 property, what material you're going to get, what you can use it for, if you
18 simply have those four values. And the claim goes beyond those four
19 values. It sets out a binder, and that binder has meaning. That binder needs
20 to have the cohesive force to bind the pigment particles together and the
21 adhesive force to stick it to a pane, if you will. It could be plastic, it could
22 be glass. And without that evidence, the rationale of In re Aller cannot be
23 applied. It's the exception that is expressed in In re Antonie.

24 JUDGE TIMM: Okay. I think we understand your position.

25 MR. IWANICKI: Okay. Thank you very much. Thank you very
26 much for your time.

1 Whereupon, the proceedings, at 9:33 a.m., were concluded.

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